



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,945	11/13/2003	Cheng-Shiou Huang	3624-0139P	6575

2292 7590 02/18/2005

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

PATEL, VISHAL A

ART UNIT	PAPER NUMBER
----------	--------------

3676

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/705,945

Applicant(s)

HUANG, CHENG-SHIOU

Examiner

Vishal Patel

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☐ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/13/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, lines 2-4, "at least one second engaging member", how can applicant claim a second engaging member if there is no first engaging member claimed?

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warner et al (US. 4,989,882) in view of Yost (US. 3,578,344).

Warner discloses a shaft sealing device comprising a shaft tube (shaft tube 14) having a first end on which provided with a rotary ring (ring 32) and a second end (end where screws 16 are placed to secure the shaft tube to the shaft 12), a main body (body 52) provided with an axial hole (hole that retains a stationary ring assembly formed by 50, 44 and 42), a fixed sealing ring

Art Unit: 3676

(42) being inserted in the axial hole of the main body and adapted to confront with the rotary ring, a positioning ring (50) being inserted in the axial hole of the main body and mounted to the main body, the positioning ring provided with at least one positioning recess (hole receiving spring 46) and at least one elastic member inserted thereinto (elastic member 46). The shaft tube having an outer flange for mounting the rotary ring (flange of the shaft tube 14 that holds the rotary ring 32). The second end of the shaft tube is mechanically connected with a stop ring for limiting axial movement (connection of the shaft tube to the shaft 12). The fixed sealing ring including an outer ring on its outer circumference to increase its sealing effect (outer ring 58). Warner fails to disclose a combination of a positioning ring having a groove holding an elastic member, a retaining ring being inserted in the axial hole of the main body, the retaining ring having a first sidewall and a second side wall, the fixed sealing ring, the retaining ring and the positioning ring are disposed on the shaft tube in loose fit manner to allow for rotation of the shaft tube, the retaining ring is located between the fixed sealing ring and the positioning ring after assembling, and the first side wall of the retaining ring connected with the fixed sealing ring to limit rotation while the second side wall of the retaining ring being biased by the elastic member of the positioning ring. Yost discloses a fixed ring (30) that is mounted in a positioning ring (20) having a groove (groove that holds spring 40) to hold an elastic member (40), a retaining ring (60) inserted in the positioning ring, the retaining ring being biased by the elastic member on one side wall and a second side wall contacting the fixed sealing ring to limit rotation (61 and 62 limit rotation of the fixed sealing ring). The first sidewall of the retaining ring includes at least one first engaging member projected therefrom and the first engaging member is engaged with an engaging notch of the fixed sealing ring (61 goes into notch of the fixed sealing

Art Unit: 3676

ring and also that 52 is the second engaging member that engages the positioning ring 20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the positioning ring, the retaining ring and the fixed sealing ring of Yost by the entire assembly of the positioning ring, the retaining ring and the fixed sealing ring of Yost, to prevent rotation of the fixed sealing ring (column 2, lines 23-55 of Yost).

Regarding claim 8: Warner discloses the invention substantially as claimed above and further discloses that the fixed sealing ring includes an outer ring on its outer circumference to increase its sealing effect (the fixed sealing ring being made of 42 and 44) but fails to disclose the positioning ring to have a groove that holds the elastic element and a retaining ring that is connected to the fixed sealing ring to limit rotation. Yost discloses a retaining placed in a positioning ring to limit rotation of a fixed sealing ring (fixed ring 30 that is in a positioning ring 20 and has a retaining ring 60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the shaft sealing device of Warner to have a groove to hold the elastic member and to include a retaining ring as taught by Yost, to prevent rotation of the fixed sealing ring (column 2, lines 23-55 of Yost) and to retain the elastic member properly.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Warner and Yost as applied to claim 1 above, and further in view of Yamasaki et al (US. 6,357,753).

Warner and Yost disclose the invention substantially as claimed above but fail to disclose that the main body includes a plurality of passages connected to an outer peripheral surface to the axial hole. Yamasaki teaches to have a shaft seal device that has a main body (13) having a plurality of passages (19 and 20) connected to an outer peripheral surface (outer peripheral

Art Unit: 3676

surface of 13) to an axial hole in the main body (axial hole in the main body). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the main body of Warner and Yost to have a plurality of passages connecting an outer peripheral surface to the axial hole as taught by Yamasaki, to provide flushing and quenching of the sealing device (column 5, lines 18-19 of Yamasaki).

Allowable Subject Matter

6. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maeda, Warner, Toal, Takahashi, Kitajima et al and Less.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford, can be reached on (703) 308-2978.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Art Unit: 3676

or faxed to: 703-872-9326, for formal communications for entry before Final action: or,
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive,
Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP
February 16, 2005

A handwritten signature in black ink, appearing to read "Vishal Patel", with a stylized flourish at the end.

Vishal Patel
Patent Examiner
Tech. Center 3600